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(54) PRODUCTION OF R(-)-MANDELIC ACID

(57) Abstract:

PURPOSE: To produce mandelic acid useful as a synthetic raw material for cephem-type antibiotic substance in high efficiency by treating R,S-mandelonitrile or a mixture of benzaldehyde and hydrocyanic acid with a specific microorganism in an aqueous medium. CONSTITUTION: The objective mandelic acid can be produced by treating R,S- mandelonitrile or a mixture of benzaldehyde and hydrocyanic acid with a microbial strain belonging to genus Nocardia, Bacillus, Brevibacterium or Aureobacterium and capable of stereo-selectively hydrolyzing the nitrile group of R,Smandelonitrile (e.g. Nocardia asteroides IFO 3384) or its treated product in a nearly neutral or basic aqueous medium.

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